

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           1. (currently amended) A method for the elimination of  
2 spurious signal components ~~(SS)~~ in an input signal ~~(ES)~~, said  
3 method ~~consisting of~~ comprising the steps of:

- 4           - the characterization, in a signal analysis phase ~~(I)~~,  
5               of signal components of the spurious signal  
6               components ~~(SS)~~ and of an information signal ~~(NS)~~  
7               contained in the input signal ~~(ES)~~, and  
8           - the determination or generation, in a signal processing  
9               phase ~~(II)~~, of the information signal ~~(NS)~~ or an  
10            estimated information signal ~~(NS')~~ on the basis of  
11            the characterization obtained in the signal analysis  
12            phase ~~(I)~~, wherein

C           said characterization of the signal components ~~(SS, NS)~~  
13           being are performed under utilization at least of  
14           auditory-based features ~~(M1 to Mj)~~ determined in the  
15           signal analysis phase, employing a primitive-  
16           grouping method.  
17

1           2. (currently amended) The method as in claim 1, wherein  
2 at least one of the following auditory features ~~(M1 to Mj)~~ are  
3 used for the characterization of the signal components ~~(NS,~~  
4 ~~SS)~~: loudness, spectral profile, harmonic structure, common  
5 build-up and decay times, coherent amplitude and frequency  
6 modulation, coherent phases, interaural runtime and level  
7 differences.

1           3. (currently amended) The method as in claim 1, wherein  
2 the auditory features ~~(M1 to Mj)~~ are determined in a plurality  
3 of different frequency bands that are different from each  
4 other.

1           4. (canceled).

1           5. (currently amended) The method as in claim 1, wherein  
2 the characterization of the signal components ~~(SS, NS)~~ is  
3 performed by evaluating the features ~~(M1 to Mj)~~ determined in  
4 the signal analysis phase ~~(I)~~, employing a scheme-based  
5 grouping technique.

1           6. (currently amended) The method as in claim 5, wherein  
2 a hypothesis is established or specified on the nature of the  
3 signal component ~~(SS, NS)~~ and is taken into account in the  
4 grouping of the identified features ~~(M1 to Mj)~~.

C 1           7. (currently amended) The method as in claim 5 or 6,  
2 wherein for the characterization of the signal components ~~(NS,~~  
3 ~~SS)~~, at least the auditory features ~~(M1 to Mj)~~ are grouped  
4 along the principles of a gestalt theory.

1           8. (currently amended) The method as in claim 1, wherein  
2 the signal components identified as spurious noise components  
3 ~~(SS)~~ are suppressed and/or the signal components identified as  
4 information signals ~~(NS)~~ or estimated information signals  
5 ~~(NS')~~ are amplified.

1           9. (currently amended) The method as in claim 1, wherein  
2 the information signal ~~(NS)~~ or an estimated information signal  
3 ~~(NS')~~ is synthesized in the signal processing phase ~~(II)~~ on  
4 the basis of the features ~~(M1 to Mj)~~ detected in the signal  
5 analysis phase ~~(I)~~.

1           10. (currently amended) The method as in claim 1, wherein  
2 with the aid of an analysis of the harmonic structure in the  
3 signal analysis phase ~~(I)~~, different base frequencies of the

4 signal component of the information signal ~~(NS)~~ or of the  
5 estimated information signal ~~(NS')~~ are extracted and, with the  
6 aid especially of a loudness or LPC analysis, spectral levels  
7 of harmonics of these signal components are defined, and on  
8 the basis of the spectral levels and the harmonics an  
9 information signal for tonal speech components is synthesized.

1 11. (currently amended) The method as in claim 1, wherein  
2 with the aid of an analysis of the harmonic structure in the  
3 signal analysis phase ~~(I)~~, nontonal signal components of the  
4 information signal ~~(NS)~~ or of the estimated information signal  
5 ~~(NS')~~ are extracted and, with the aid especially of a loudness  
6 or LPC analysis, spectral levels of these signal components  
7 are defined, and with the aid of a noise generator an  
8 information signal for nontonal speech components is  
9 synthesized.

1 12. (currently amended) The method as in claim 10 or 11,  
2 wherein the information signal ~~(NS)~~ and/or the estimated  
3 information signal ~~(NS')~~ is amplified.

1 13. (previously presented) Application of the method  
2 according to claim 1 for operating a hearing aid.

1 14. (previously presented) Hearing air operating by the  
2 method according to claim 1.

1 15. (new) A method for the elimination of spurious signal  
2 components in an input signal, said method comprising the  
3 steps of:

4 - the characterization, in a signal analysis phase , of  
5 signal components of the spurious signal components  
6 and of an information signal contained in the input  
7 signal , and

8           - the determination or generation, in a signal processing  
9           phase , of the information signal or an estimated  
10          information signal on the basis of the  
11          characterization obtained in the signal analysis  
12          phase , wherein  
13          said characterization of the signal components is  
14          performed under utilization of at least auditory-  
15          based features determined in the signal analysis  
16          phase by employing a scheme-based grouping  
17          technique.

C 1          16. (new) The method as in claim 15, wherein the  
2          characterization of the signal components is performed by  
3          evaluating the auditory-based features determined in the  
4          signal analysis phase, employing a primitive-grouping method.

1          17. (new) The method as in claim 16, wherein a hypothesis  
2          is established or specified on the nature of the signal  
3          component and is taken into account in the grouping of the  
4          identified auditory-based features.

1          18. (new) The method as in claim 16 or 17, wherein for  
2          the characterization of the signal components, at least the  
3          auditory-based features are grouped along the principles of a  
4          gestalt theory.

1          19. (new) The method as in claim 15, wherein the signal  
2          components identified as spurious noise components are  
3          suppressed and/or the signal components identified as  
4          information signals or estimated information signals are  
5          amplified.

1          20. (new) The method as in claim 15, wherein the  
2          information signal or an estimated information signal is

3 synthesized in the signal processing phase on the basis of the  
4 features detected in the signal analysis phase.

1 21. (new) The method as in claim 15, wherein with the  
2 aid of an analysis of the harmonic structure in the signal  
3 analysis phase, different base frequencies of the signal  
4 component of the information signal or of the estimated  
5 information signal are extracted and, with the aid especially  
6 of a loudness or LPC analysis, spectral levels of harmonics of  
7 these signal components are defined, and on the basis of the  
8 spectral levels and the harmonics an information signal for  
9 tonal speech components is synthesized.

C 1 22. (new) The method as in claim 15, wherein with the  
2 aid of an analysis of the harmonic structure in the signal  
3 analysis phase, nontonal signal components of the information  
4 signal or of the estimated information signal are extracted  
5 and, with the aid especially of a loudness or LPC analysis,  
6 spectral levels of these signal components are defined, and  
7 with the aid of a noise generator an information signal for  
8 nontonal speech components is synthesized.

1 23. (new) The method as in claim 21 or 22, wherein the  
2 information signal and/or the estimated information signal is  
3 amplified.

1 24. (new) The method as in claim 15, wherein at least one  
2 of the following auditory features are used for the  
3 characterization of the signal components: loudness, spectral  
4 profile, harmonic structure, common build-up and decay times,  
5 coherent amplitude and frequency modulation, coherent phases,  
6 interaural runtime and level differences.

1 25. (new) The method as in claim 15, wherein the auditory

2 features are determined in a plurality of frequency bands  
3 that are different from each other.

1 26. (new) An application of the method according to  
2 claim 15 for operating a hearing aid.

1 27. (new) A hearing air operating by the method  
2 according to claim 15.

1 28. (new) A method for the elimination of spurious signal  
2 components in an input signal, said method comprising the  
3 steps of:

C  
4 - the characterization, in a signal analysis phase , of  
5 signal components of the spurious signal components  
6 and of an information signal contained in the input  
7 signal , and  
8 - the determination or generation, in a signal processing  
9 phase, of the information signal or an estimated  
10 information signal on the basis of the  
11 characterization obtained in the signal analysis  
12 phase , wherein  
13 said characterization of the signal components is  
14 performed under utilization of at least auditory-  
15 based features determined in the signal analysis  
16 phase to separate speech signals from non-speech  
17 signals in the signal processing phase.

1 29. (new) An application of the method according to  
2 claim 28 for operating a hearing aid.

1 30. (new) A hearing air operating by the method  
2 according to claim 28.